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JPRS Report

Telecommunications

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EQUATORIAL GUINEA

South Africa Plans To Construct Satellite Tracking Station

55000006 Luanda Domestic Service in Portuguese 1200 GMT 11 Mar 88

[Text] In order to improve telecommunications between South Africa and Europe, racist South Africa has signed a contract with Equatorial Guinea for the construction of a satellite tracking station in that country. This was revealed in Bonn by a representative of the FRG's Hans Seidel Stiftung International Institute.

Under the terms of this contract, all material and engineering support will be provided by South Africa. South Africa will also supply troops that will be responsible for protecting the material and the experts involved in the project.

The contract also provides for extending and revamping Malabo Airport, which will also be used by South Africa's fleet of civilian aircraft. This contract between South Africa and Equatorial Guinea had been kept secret until this disclosure by the Hans Seidel Stiftung Institute, an organization that is believed to be close to Franz-Josef Strauss, an ultraconservative FRG official who recently visited South Africa.

Siemens Enterprises will provide all precision telecommunications material through a Johannesburg branch.

Recently, South Africa admitted being involved with this African country in what it termed an agricultural project.

Northern Telecom Electronics Research Center Opened

55200026 Ottawa THE OTTAWA CITIZEN in English 6 Feb 88 p F7

[Article by Doug Kelly, CITIZEN staff writer]

[Text] Northern Telecom Electronics Ltd. has opened a $105-million research and production centre in Nepean that will soon begin production of some of the smallest microchips ever made.

Known as the Advanced Semiconductor Technology Centre, the Corkstown Road facility includes a production room that is the cleanest dust-free environment in Canada.

Such an environment is required because miniaturized circuits in a microchip are so small they can be destroyed during production by dust particles.

The microchips will be produced exclusively for Nortel products including telephones, voice and data terminals and telephone switching systems.

The centre's opening will create about 100 new jobs.

On top of the $105 million for construction and equipment, Nortel plans to spend $205 million by 1990 for research and operating expenses for the centre, which is one of only a few of its calibre in the world.

The massive expenditure is needed to "enhance Northern Telecom's leadership role in the international marketplace," said A. Graham Sadler, president of Nortel Electronics, a wholly owned subsidiary of Northern Telecom Ltd.

The microchips to be developed will have circuit pathways and elements of 1.2 microns wide (that's about 60 times thinner than a human hair.)

By 1990, Nortel expects to have the pathway and element size down to a half micron, which is barely larger than some viruses.

The smaller microchips, each containing several hundred thousand and eventually millions of transistors, will allow Nortel to increase the processing power and intelligence of its products, while reducing their size and power requirements.

The in-house capability to manufacture microchips, rather than buy them, is vital to Nortel for a number of reasons, and Geoff Shrank, vice-president of technology and business development.

For example, he said the detailed knowledge of telecommunications that is needed to design microchips for some of their products is often not available to the semiconductor industry.

As well, he said, in-house production allows Nortel to better control the timing of new products.

Although the two-storey facility was completed in 1986, it has taken 18 months to ready it for production.

The ventilation system, capable of changing the air in the 2,000-square-metre production room every eight seconds, removes virtually all pollens, molds, plant spores and bacteria.

The air enters the room through the ceiling and leaves through perforations in the floor.

All employees are decked out from head to toe in white gortex suits, which include a portable battery-powered system for filtering exhaled air strapped to the hip.

Smokers are not hired to work in production room because they breathe out detectable amounts of smoke particles even if several hours have passed since they last lit up.

Regular paper is prohibited because it sheds too many particles. Instead, a plastic coated paper is used.

Special pens containing a low sodium ink are also used.

The centre even has its own laundry facility to ensure that the suits are as clean as possible. Special detergent and ultra-pure de-ionized water is required.

The end result is that the air in the room is 10,000 times cleaner than the air in a typical office building.

/09599

Broadcasters Criticize Admission of New U.S. Cable Channels

55200024 Ottawa THE OTTAWA CITIZEN in English 21 Jan 88 p A5

[Text] The Canadian Association of Broadcasters has bypassed the federal cabinet and complained directly to the federal broadcast regulator about new specialty channels licensed for cable television.

The trade association representing about 60 TV stations and networks says the Canadian Radio-Television and Telecommunications Commission erred in allowing five new American stations on the pay-TV service.

It sent a letter Wednesday to commission chairman Andre Bureau pointing out what it says is potential damage to Canadian broadcasters from permitting cable companies to add the extra U.S. channels.

A copy of the letter was sent to Communications Minister Flora MacDonald, said Bill Roberts, an association vice-president.

Cabinet has received a number of complaints about the Nov. 30 licensing decisions, notably from Allarcom Ltd. of Edmonton which wants the government to rescind the decision granting the CBC the licence for an all-news channel.

Cabinet, which can set aside CRTC rulings, is expected to announce its decision Jan. 29.

Roberts said the broadcasters' association decided not to deal "with the political process or with the minister. We are dealing directly with the CRTC and underscoring our belief...that when it comes to policy correction, reconsideration, the holding of public hearings—these are normally at the discretion of the commission."

The broadcasters complaint mirrors a protest filed to cabinet by the Canadian Film and Television Association. They said adding new American channels could eliminate separate markets now available to television program and film producers to sell their wares.

The American stations, for example, would be less likely to buy Canadian programs if they compete directly on a Canadian cable service where those shows are already available.

The U.S. stations were added to the list of eligible channels for cable companies to pick up because of a gap left with the shifting of MuchMusic and The Sports Network to basic cable.

On Wednesday, Allarcom said French-speaking Canadians will be short-changed if the decision to give the CBC a licence for an all-news cable television service is confirmed.

Allarcom said the CBC proposal will force francophone cable subscribers to subsidize an English-only news network and is contrary to the Broadcasting Act, the Official Languages Act and the Constitution.

The company's letter to cabinet also castigated the CBC for saying the Crown corporation's extensive facilities make it the only organization capable of offering a quality all-news service.

"If this argument were to be accepted, it would mean that new private business could never be started in Canada whenever a Crown Corporation decides on its own that it wants to be involved in the same line of commercial activity," the letter said.

/06662

HONG KONG

Hongkong Telecom To Invest in Infrastructure, Services

55400029a Hong Kong HONGKONG STANDARD in English 2 Feb 88 p 1

[Article by Divina Yumol]

[Text] Hongkong Telecommunications will invest more than $30 billion by the end of the century to expand Hongkong's domestic and international telecommunications infrastructure and services.

The territory's largest publicly listed company—formed by the merger of Cable and Wireless plc subsidiaries, Hongkong Telephone and Cable and Wireless (Hongkong)—started trading yesterday and performed well despite the stock market's 2.13 per cent dip overall.

Hongkong Telephone closed at $15.50 when it last traded on January 20. Hongkong Telecom ended at $7.50 yesterday after trading between $7.40 and $7.80 with bids up to $7.90. Markings were massive and topped the 10 most actives list by value.

In terms of capitalisation, Hongkong Telecom now has the largest market capitalisation in the territory, dwarfing previous giant Hongkong and Shanghai Banking Corp.

Cable and Wireless plc and Hongkong Telecom chairman, Sir Eric Sharp, said that the merger was the result of the growing inter-relationship between Hongkong Telephone and Cable and Wireless in Business activity and technology.

"Hongkong is an integral part of the Cable and Wireless group's regional and global strategy, and an important link in the digital highway of international communications," he said.

As part of the company's investment programme several projects which involve the installation of optic fibre links linking the southern part of China with Hongkong are underway to meet the demand for telecommunications services within the next 15 years. The link will be extended further to Japan, Korea, the rest of Southeast Asia, the US, and Europe.

Sir Eric said that this would help consolidate Hongkong's position as a leading telecommunications and financial centre not only in Asia, but also the world.

He emphasized that the new company would give Hongkong people the opportunity to be more involved in a broader based telecommunications industry.

"Certainly, there is a great advantage in having a widely based local ownership. Hongkong Telecom's continuing investment programme is an example of our confidence in the future stability of Hongkong," he said.

Hongkong Telecom and its subsidiaries will continue to provide business and residential customers with a wide range of telecommunications facilities and services, including domestic and international telephone, telex, facsimile and data transmission and computing services.

It will also own all subsidiaries and interests in associate companies previously owned by Hongkong Telephone, including Communication Services, Integrated Business Systems, Computasia, Unitel, Cable Television and Telco Properties.

07310

Cable TV License Bidder Eyes Intermediate Frequencies

55400030 Hong Kong HONGKONG STANDARD in English 29 Jan 88 p 3

[Text] Hutchison Cablevision (HCV) will study the possibility of using intermediate frequencies in its live broadcast coverage if it is awarded the licence to operate the first cable television service.

This was because there were no more frequencies left on the existing microwave spectrum, Mr James Snelling, an engineering consultant with HCV, said yesterday.

He said the licencee would have to find an alternative to standard microwave relays to keep its promise to produce "real live broadcast".

07310

C&W, Li Ka-Shing Telecom Deal Reportedly in Offing

55400029b Hong Kong SOUTH CHINA MORNING POST in English 2 Feb 88 p 1

[Article by Howard Winn]

[Excerpts] Cable and Wireless plc and Li Ka-shing were likely to complete a deal in the telecommunications field by the end of the year, according to Sir Eric Sharp, chairman of the British communications giant.

Sir Eric declined to be specific about the possible areas of co-operation between the two giants and said only that it would be in telecommunications.

"We see every possibility of co-operation and I would not be surprised if by the end of this current year there might be some evidence of that co-operation," he said.

Speculation of co-operation between the two organizations has been rife since September when Mr Li announced his companies had bought a 4.9 per cent stake in Cable and Wireless plc.

Sir Eric ruled out the question of a seat on the board for Mr Li or his representatives and added there had been no requests.

Asked if he would object to Mr Li increasing his stake in Cable and Wireless plc, Sir Eric said: "I would not be unhappy if he did, on the basis that the law permits individual shareholdings of not more than 15 per cent."

But he said there was no question of Mr Li attempting to take control given the legal restriction of up to 15 per cent, introduced by the British Government when the company was privatised.

Hongkong Telecommunications is the holding company of Hongkong Telephone and Cable and Wireless (Hongkong), and is now Hongkong's largest listed company with a market capitalisation of $72 billion which is more than twice that of Hongkong Bank.

At present the company is 80 per cent owned by its parent, Cable and Wireless plc, with the Government holding 11 per cent and the public nine per cent.

Sir Eric expected the Government's stake to be floated this year once market conditions had stabilised.

Plans to float the stake were shelved following the October stock market crash.

Under the terms of the merger Hongkong Telephone shareholders received two shares in the new company and a warrant for every Hongkong Telephone share.

Sir Eric agreed one of the reasons behind the merger of the two companies was to establish a Hongkong identity in the years leading up to 1997 when Hongkong reverted to China.

It had been widely suggested the Chinese Government would not be happy at the prospect of the territory's communications remaining under the control of an essentially British company.

Commenting on British Telecom's ambition to operate a second telecommunications network in Hongkong, Sir Eric said: "You have an extraordinary combination of high excellence, consumer satisfaction and competitive rates. We know of no other administration in the world in which you have a city state with alternative networks."

07310

JAPAN

NASDA Launches Telecommunications Satellite

55600020 OW191049 Tokyo KYODO in English 1036 GMT 19 Feb 88

[Text] Tanegashima, Kagoshima Pre., Feb. 19 Kyodo—The National Space Development Agency of Japan (NASDA) launched a sophisticated communications satellite Friday at 7:05 p.m. using its recently perfected three-stage H-I rocket.

The new communications satellite, CS3A, separated from the H-I rocket 26 minutes after launch. It is scheduled to be put into geostationary orbit roughly 36,000 kilometers above the equator on February 21, and begin operations as a communications relay platform in the middle of May.

The CS3A is a cylindrical satellite weighing about 550 kilograms, measuring 2.18 meters in diameter and 2.43 meters in length. Meant as a follow-on to the Sakura 2 currently in orbit, the CS3A is expected to have a seven-year life span.

The new satellite is equipped with 12 transponders giving it 1.5 times the transmission capability of the Sakura 2. In telecommunications terms, this is the equivalent of 6,000 telephone circuits.

In addition, the CS3A is equipped with the first high-power conversion gallium arsenide solar cells ever fitted to a satellite, and it has improved batteries that will allow it to operate in the earth's shadow so that it can provide 24-hour communications service.

The new satellite, which cost 11.5 billion yen to fabricate, boasts a Japanese technology ratio of 80 percent. When the rocket and tracking costs are included, the total cost of launching the satellite comes to 27.17 billion yen.

From the middle of May, the CS3A is scheduled to begin service as a communications and broadcasting satellite mainly serving government agencies such as the National Police Agency and the National Land Agency. It will also serve several private companies, including Nippon Telegraph and Telephone Corp. (NTT).

NTT plans to route long-distance calls through the satellite when circuits are overloaded, while companies such as NEC Corp. and Fujitsu Ltd. plan to conduct employee education using the satellite as a relay.

In addition, the Japan Railways Group plans to establish an earthquake detection system on the Shinkansen (bullet train) line running from Tokyo to the northeastern part of Japan using a circuit of the CS3A.

The new communications satellite was originally scheduled to be launched on February 1, but had to be delayed when faulty integrated circuits were discovered in the H-I launch rocket.

07310

New Satellite Placed on Geostationary Orbit

55600018 Tokyo KYODO in English
0720 GMT 21 Feb 88

[Text] Tsukuba, Ibaraki Pref., 21 Feb (KYODO)—Japanese space scientists successfully placed the Japanese Sakura 3A communications satellite on a circular geostationary orbit, a key step to put it on a geostationary orbit, Sunday afternoon after firing a small rocket aboard it.

/9604

NTT Wants Own Communications Satellite

55600019 Tokyo KYODO in English
0721 GMT 21 Feb 88

[Text] Tokyo, 21 Feb (KYODO)—Nippon Telegraph and Telephone Corp. [NTT] wants to launch its own communications satellite in the future, because Japan's "Sakura 3A" satellite, put into orbit Sunday, is too expensive, informed sources said.

Sakura 3A, the latest in a series of Japanese-developed communications satellites, is equipped with costly transponders—each priced at 1.84 billion yen—while the U.S.-made counterparts to be used by NTT's competitors cost about 1.2 billion yen each, the sources said.

Japan Communications Satellite Co. and Space Communications Co., both set up 3 years ago as NTT's rivals when Japan's telecommunications industry was liberalized, plan to launch two American satellites each next year aboard foreign rockets.

In addition, their U.S.-made satellites will be usable for 10 years, while Sakura 3A can be used for only 7 years, they said.

As a result, the sources said NTT has requested that the government's space development committee review Japan's current communications satellite development programs based on the Sakura series.

The request likely means that NTT has expressed its policy of having its own satellites after Sakura 3A, depending on the government's future moves, they said.

The committee is now reviewing its space development policy guidelines with regard to putting communications and broadcasting satellites on a private and commercial basis, officials at the Science and Technology Agency said.

The officials said the agency now favors the commercialization of the satellites, meaning private circles would bear all necessary expenses because of the lack of state funds.

But other government officials, including those at the Ministry of Posts and Telecommunications, expressed caution about such a policy, saying Japanese satellite makers with weak technological backgrounds might be unable to compete with their foreign counterparts.

They also warned that Japan would suffer a loss if it had no home-made satellites in the future.

/9604

THAILAND

Thailand: Satellite Procurement, Development Reviewed

55004302 Bangkok SIAM RAT SAPDA WICHAN in Thai 20-26 Dec 87 pp 13-15

[Article by Ongkhot: "Battle in the Sky, Thailand's Communications Satellite"]

[Text] On 1 October 1987, the Ministry of Communications issued a statement urging the private sector to invest in putting a Thai communications satellite into orbit for use in domestic communications. The Ministry of Communications will grant a 30-year concession. The company granted the concession will have to put this satellite into orbit within 5 years after signing the contract (which is expected to take place on 15 July 1988).

Domestic satellite communications, with private companies granted the concession for launching the satellite, includes telephone, telegraph, telex, radio facsimile, teletype, date communications, radio, and television. At present, the units responsible for providing these services are the Communications Authority of Thailand and the Telephone Organization of Thailand.

I must compliment Mr Siphum Suknet, the new under secretary of communications, who has devoted himself to satellite communications ever since he served as the director-general of the Post and Telegraph Department, and Police Maj Gen Suchat Phuaksakon, his successor as director-general, who continued this work. As a result of their efforts, domestic satellite communications took form. Color Television Channel 7 invested more than 300 million baht to build satellite relay ground stations in more than 10 provinces. It rents signal relay equipment, or transponders, of the Indonesian Palapa satellite for $750,000, or approximately 19.5 million baht a year. But it has gotten its investment back and made a profit. The unit that then saw the value of satellite communications was Supreme Command Headquarters. It built several fixed and mobile ground stations. Later on, the army, navy, air force, Ministry of Interior, Police Department, and Telephone Organization of Thailand

built ground stations. In 1982 the Post and Telegraph Department received permission to build a master ground station for use by all the government units.

While the Post and Telegraph Department was developing domestic satellite communications, the Communications Authority of Thailand, or CAT, which inherited international satellite communications from the Post and Telegraph Department before splitting away and becoming a state enterprise, turned its attention to investing in domestic satellite communications. But the CAT was interested in using the Intelsat satellite of the International Satellite Communications Organization for technical reasons and for the benefits to be gained. Another reason that has not been made public is that it did not want to have to rent the Palapa satellite through the Post and Telegraph Department. Also, the Ministry of Communications was still using transportation specialists to analyze telecommunications activities. Thus, the minister decided to divide Thai satellite communications into two systems, that is, to use the Palapa satellite, for which the Post and Telegraph Department was made responsible, and to use the Intelsat satellite, for which the CAT was made responsible.

If you have read my article "Mobile Telephones in Thailand," you will probably not be surprised at the reasons why Thailand has two cellular telephone systems, that is, a Nordic system, which is operated by the Telephone Organization of Thailand, and the AMPS system, which is operated by the CAT.

From 1983 to the present, a period of 5 years, looked at superficially, it may seem as if good progress has been made in the field of communications satellites. The "dream salesman" politician who was responsible for administering the affairs of the Ministry of Communications during one period said that Thailand would definitely have its own communications satellite within 1-2 years. We were supposed to purchase Indonesia's Palapa 2 satellite, which had strayed out of its orbit because of an error made when releasing the satellite from the spacecraft. It was the insurance company that retrieved the satellite. Those who did not know very much about this were delighted. But knowledgeable people were amused by this. Their feeling was, let him go ahead and do this. Because this was just a politician's way of winning votes. When the "dream salesman" submitted the matter to the cabinet, the matter was killed. But after the Thai Nation Party gained control of the Ministry of Communications, this matter was revived. A private company asked for the concession, saying that it would donate 100 million baht to the Saichai Thai Foundation the day that the contract was signed. The new minister was delighted and immediately submitted the matter to the cabinet and asked permission to implement things right away. The result was that the private company refused to sign the agreement even though the Ministry of Communications postponed signing the agreement several times. But how could an agreement be signed in view of the fact that what had been proposed was impossible in terms of both money and implementation!

Unlike what the "dream salesman" politician once said, it is not easy to put a communications satellite into orbit. This requires much preparation. The preparations can take 5 years or more. The difficult stages that take time include the following:

1. Reserving an orbit or slot in space for our satellite. Thailand, through the Post and Telegraph Department, must contact the International Telecommunication Union, or ITU, and coordinate things with the International Satellite Communications Organization, or Intelsat. At an ITU meeting held in 1977 (WARC 77), which Police Maj Gen Suchat attended as Thailand's representative, Thailand received permission to use a slot at longitude 74 degrees east on condition that this satellite be a direct broadcast satellite, or DBS. It must use a frequency of 14/11 GHz, or the Ku band. In requesting a slot, the country making the request must have a definite program. It must inform the member countries 2 years in advance and begin operations within 5 years. Countries can't reserve slots and then do nothing.

2. Coordinating things with and obtaining approval from the neighboring countries within the radio wave cone from the satellite. In the case of Thailand's communications satellite, this will include Malaysia, Singapore, Indonesia, Burma, India, Vietnam, Laos, and Cambodia. Negotiations with some of these countries may prove to be very difficult, particularly, India, Indonesia, Vietnam, Laos, and Cambodia. As for India, there is an old saying, "If you meet an Indian and a snake, hit the Indian first." That probably still applies. Indonesia, will probably prove just as difficult as India. Indonesia has communications satellites that are serving the ASEAN countries, including Thailand. Thus, if Thailand puts a communications satellite into orbit and the Ministry of Communications allows the satellite concessionaire to start serving neighboring countries, Thailand will be competing with Indonesia for customers. Thus, it will be very difficult to coordinate things with Indonesia and obtain its approval for this. As for Vietnam, Laos, and Cambodia, international political matters will definitely crop up during the negotiations.

3. Reserving a spacecraft to put the satellite into orbit. It is well known that the National Aeronautics and Space Administration, or NASA, has had failures in launching spacecraft. The space shuttle disaster happened just a few years ago. Following that, the European space organization (Arianespace) had an accident in launching a rocket. Countries with satellite-communications programs are beginning to wonder whom they should hire to put their satellites into orbit. The countries that have their own launching pads and that can put communications satellites into orbit for other countries include

China, Japan, and the Soviet Union. The countries that have satellite programs are now looking toward and pinning their hopes on these countries.

The matter of our carrying on diplomatic negotiations to have "Latkhit" put a satellite into orbit for us was really just a boast. There was little truth to this.

Is it clear now? In putting a communications satellite into orbit, Thailand still faces many difficulties and obstacles. Actually, the Post and Telegraph Department has constantly monitored the matter of putting a satellite into orbit. If ministry officials had been more realistic and not considered this to be a "cinch," Thailand might have its own satellite by now.

Let's look again at the communications satellite program of the Ministry of Communications and try to determine how feasible this is. If the senior people in the ministry, particularly Under Secretary Siphum, who is an expert in the field of satellite communications and who once ran for the position of director of Intelsat, read this, they should get some new ideas:

1. Those thinking about investing in this will have to think hard about this, because this will require an investment of about 10 billion baht. (There must be two satellites in orbit, one that is in operation and one spare. And there must be a spare satellite on the ground and a ground control station.) Recently, the British Satellite Broadcasting Company, which was granted a concession by the English government to put a communications satellite into orbit in order to provide direct broadcast satellite (DBS) services signed a contract to purchase communications satellites, equipment, and a ground station from the Huges Aircraft Company for 200 million pounds, or approximately 9 billion baht. The first satellite will be put into orbit in October 1989. Do you see how long this takes? And before this company signed this contract with Huges Aircraft, it had been making preparations for at least 5 years, going though the stages discussed above.

Even though the Ministry of Communications has offered a 30-year concession as an inducement, the work life of a communications satellite is only 10 years even though much progress has been made on the technological front. During those 30 years, the concessionaire will have to put two more sets of satellites into orbit. Each of these sets of satellites will require the same amount of investment capital and the same preparations.

You don't have to use economics to figure this out. The investment will cost about 10 billion baht. The transponders in each set of satellites will cost about 26.5 million baht a year. If the company can rent out all the transponders in the two satellites, it will do all right. The major customers likely to rent the transponders include the five television channels (including Channel 11 of the Department of Public Welfare), the Communications Authority of Thailand (this time, it won't be able to rent the Intelsat), and the Telephone Organization of Thailand. Smaller users will include government units and other state enterprises. But altogether, there will be few customers. If we compete with Indonesia and Intelsat for customers abroad, that should help.

2. Besides the huge investment required as discussed above, even if the economic estimates are feasible, the investors will naturally hope to profit from renting out the satellite transponders. Besides the private sector, that is, Color Channel 7 and Channel 3, and the state enterprises and government units such as channels 5 and 9 and the CAT and TOT that have to use satellites, in the case of military and public civilian units, the cabinet will have to pass a resolution clearly stating that these units must stop renting the Intelsat and Palapa satellites and rent Thailand's communications satellite instead.

But it should not be forgotten that this cabinet resolution is not absolutely binding on the government units and state enterprises. There have been many instances in which the cabinet has reviewed or rescinded a resolution. And there have been many cases in which government units, particularly the military services, have asked the cabinet to make exceptions in their case and exempt them from having to obey the resolutions in effect for government units and state enterprises in general. Stop and think about this. During the 30-year concession of a private company, which has invested 10 billion baht, think how many times the cabinet will be reshuffled. If there is a change of government, the cabinet resolutions may change, too. Take the case of the Ngu Hao Swamp as an example. Has the Ministry of Communications thought about this? If it hasn't, it should think about this and look for ways to prevent problems from arising later on.

3. The private company granted the concession is supposed to beginproviding satellite service within 5 years after signing the contract, or around July 1993. But how feasible is this? Think about the important stages discussed above, particularly reserving an orbit in space, or slot, and coordinating things with neighboring countries.

Concerning the slot, even though it was stated above that Thailand received permission in 1977 to use a slot at longitude 74 degrees east, it should not be forgotten that the ITU placed an important limitation on the satellite frequency. That is, we can use only the Ku band. Looking at Thailand's present needs, it can be seen that both the telecommunications system in general and the television broadcasting system use the C Band (6/4 GHz). The question is, Will the ITU allow Thailand to use the slot previously authorized? Has the Ministry of Communications taken any action on this?

Concerning obtaining a slot and coordinating things with neighboring countries, if the Ministry of Communications had entrusted the Post and Telegraph Department with the task of handling these matters 3-4 years ago, it would probably have solved these problems by now.

I hope that Under Secretary Siphum, who has always been very progressive in his thinking, will consider the things discussed here. If a program does not seem to be feasible, it should be canceled or the focus should be changed. If an invitation is issued and the program can't be carried out, that is just a waste of time and effort.

This will probably not happen if Under Secretary Siphum telephones Mr Mahidol, the director-general of the Post and Telegraph Department, before taking action instead of using the ministry's transportation technocrats as was done in the past. The Post and Telegraph Department, the Communications Authority of Thailand, and the Telephone Organization of Thailand all have large human resources from the lowest level to the doctorate level. Telecommunications or postal matters should be entrusted to people who have knowledge about and experience in such matters. This will yield more valuable results. If it is felt that the CAT and TOT should not become involved in policy matters because they are state enterprises, the ministry should use the Post and Telegraph Department as its right hand just as is done in many other countries.

11943

JAMAICA

Public Broadcasting Unit Named To Expedite Divestment

55400031 Bridgetown CANA in English
1509 GMT 15 Jan 88

[Text] Kingston, February 15—The Jamaica Government has announced the formation of a special unit to expedite the establishment of a new Public Broadcasting Service (PBS), which will run state-owned radio and television.

Minister of State for Information Babsy Grange said Carey Robinson, the general manager of the Jamaica Broadcasting Corporation (JBC), will from Monday head the PBS unit.

The Edward Seaga government is planning to divest JBC and grant licences for new radio and television stations here. The PBS will have responsibility for public affairs broadcasting.

Meantime, Grange announced that Ulric Simmonds, a retired GLEANER newspaper politics writer and now consulting editor of the JBC, has been appointed to act as the corporation's general manager.

07310

BANGLADESH

Paper Gives Details on BSS-TASS Agreement

55500070 Dhaka THE NEW NATION in English
21 Jan 88 p 3

[Text] An agreement for exchange of news between the Bangladesh national news agency, BSS and the Soviet news agency Tass, was signed in Dhaka on Monday morning, reports BSS.

Mr Mahbubul Alam Chief Editor and Managing Director of the BSS, and the Soviet Ambassador in Bangladesh, Mr. V. G. Bliaev, signed the agreement at the BSS office.

Information Minister Anwar Zahid, Information Secretary Nurunnabi Chowdhury and the Chairman of BSS Board of Directors, K. G. Mohiuddin, were present.

Tass correspondent in Bangladesh Mr. Konstantin G. Yarovoi, and officials of Soviet embassy were also present.

The Information Minister expressed his satisfaction over the signing of the agreement, which, he said, would bring the two friendly countries still closer to each other. He described the agreement as "important" and said this would help forge greater understanding and amity between the Soviet Union and Bangladesh.

Mr. Zahid said Bangladesh valued its ties with the Soviet Union and expressed happiness on behalf of the government as well as of President H. M. Ershad at the conclusion of the agreement between the national news agencies of the two countries.

In this context, the Information Minister lauded the understanding shown by the Soviet people, the government and the Communist Party leaders of the recent political developments in Bangladesh. He also appreciated the objectivity with which the Soviet media covered these developments.

The Soviet Ambassador, in his remarks, described the agreement as a "positive step" toward greater cooperation in the field of news and information between two countries.

He said the exchange of news between the news agencies of the two countries would enable the two sides to know each other better. This would have a positive impact on the over-all friendly ties between two countries, he said.

Mr. Mahbubul Alam said the BSS-Tass agreement would usher in a new era of cooperation between the two national news agencies as well as in the relations between the two countries.

/09599

INDIA

Remote Sensing Satellite Airlifted to Soviet Union

55500072 Madras THE HINDU in English
25 Jan 88 p 4

[Text] Bangalore, Jan. 24. The Indian Remote Sensing Satellite IRS-1A and all the necessary associated equipment were airlifted in a special chartered flight from Bangalore today to the Soviet cosmodrome in the USSR, the ISRO announced here.

The satellite will subsequently undergo a series of tests after which the necessary propellant will be loaded on to the satellite and the satellite will be mated to the rocket carrier. The satellite is slated for a mid-March launch aboard the Soviet Vostok launch vehicle from the Baikonur cosmodrome, the ISRO said.

Earlier, at the ISRO Satellite Centre here, the satellite, it was stated, underwent a gamut of acceptance tests which included thermal vacuum, acoustic and solar panel deployment tests. An expert committee reviewed on January 19, the flight readiness of the satellite and the associated ground segment elements, that included the readiness of the telemetry, tracking command control centre at Bangalore, the main data reception station at Hyderabad and other tracking centres at Lucknow, Mauritius and Bears Lake (USSR), and cleared the satellite for shipment.

Arrangements have also been made with the European Space Agency, the West German Space Agency and the NASA for providing additional tracking and telemetry support, during the critical initial phase of the satellite operations, immediately after the launch and when the satellite is not within the visibility of the Indian-managed ground stations.

The ISRO pointed out that the IRS-1A is the first of a series of operational remote-sensing satellites to form the space segment of the National Natural Resources Management System (NNRMS). It weighs 980 kg and will be placed in a 904-km polar sun-synchronous orbit. The satellite carries three state-of-the-art camera systems to image the country in four spectral bands with resolutions of 72m and 36m. The images received from IRS-1A will be used for monitoring and management of the country's national natural resources in areas of agriculture, forestry, soils, water resources, minerals and geology.

The satellite, it was stated, incorporates a number of advanced technologies and systems build indigenously, and compares well with the contemporary remote-sensing satellites such as Landsat-D. The Spacecraft Control Centre (SCC) at Bangalore and all the other necessary ground systems to monitor and control the satellite, as well as to receive and process the satellite data have also been installed and tested for readiness to take part in the IRS mission.

Prof. U. R. Rao, Chairman, ISRO, and Secretary, Department of Space, who witnessed the transportation operations of the satellite, said the IRS satellite was a milestone in the ISRO programme which will enable the ISRO to provide remote sensing of natural resources to the nation on an operational basis. It would aid important applications such as ground water potential mapping, drought management, urban land use, wasteland mapping, deforestation studies, etc.

/09599

India To Use Soviet Commercial Satellite Launch Service

BK110655 Delhi Domestic Service in English
0630 GMT 11 Mar 88

[Text] India has become the first country to avail of the Soviet Union's commercial baunch service. It has agreed to pay 75 million rupees for the launch of the Indian Remote Sensing Satellite [IRS] scheduled for next Thursday. Official sources said in New Delhi that the agreement with the USSR includes the guarantee for accuracy in the orbit into which the IRS will be placed, the first in a series of similar satellites. The IRS is expected to circle over the poles at a height of 904 km. In case IRS failed to perform the mission after it was placed in orbit, the Soviet Union shall consider the possibility of providing a repeat launch.

#0950

Delhi Reports Launching of First Satellite

BK170925 Delhi Domestic Service in English
0850 GMT 17 Mar 88

[Text] India's first operational remote sensing satellite, IRS-1A, hurtled into orbit seconds after its launch from the Baykonur Cosmodrome in the Soviet Union shortly after 1230 Indian Standard Time. The Indian ambassador in the Soviet Union, Mr T.N. Kaul, and Gnavcosmos Chairman Mr Aleksandr Dunayev were among those present at the launching ceremony. The 980-kg satellite is expected to take its scheduled slot in space in about a month's time. The satellite is to go through several sensitive postlaunch maneuvers before being placed in the polar synchronous orbit.

Today's launching marks India's firm strides in the space technology as it joins the United States, the Soviet Union, Japan, and France, which have orbit satellites of this weight class. The launching also highlights the satellite design and development capabilities built by ISRO [India Space Research Organization] since the launching of the country's first satellite Aryabhata in April 1975.

The payload system aboard IRS-1A constitutes sophisticated cameras to collect data, which will be of immense use in agriculture, forestry, and environmental technology.

Satellite Sends First Photographic Image

BK200935 Delhi Domestic Service in English
0830 GMT 20 Mar 88

[Text] The Indian remote sensing satellite, IRS-1A, which was put into orbit on Thursday [17 March], is moving toward its allotted slot in space. Indian Space Research Organization sources in Bangalore said today the 975 kg satellite, which is receiving its electrical energy from solar panels, has been successfully deployed into a sun-synchronous orbit.

The satellite, which is in fine shape, has beamed back the first photographic image covering a strip of land extending from the Himalayas to Kanyakumari.

Further on Successful Satellite Launch

BK171626 Delhi Domestic Service in English
1530 GMT 17 Mar 88

[Text] The country's first operational remote sensing satellite IRS-1A, which went into orbit today, has been successfully tracked by all the ground stations.

They are receiving telemetry data from the satellite. The spacecraft is now circling the earth over the poles at a height of 904 km, taking 103 minutes for each orbit.

An ISRO [Indian Space Research Organization] release says the two side-mounted solar panels automatically opened out soon after the launch. The panels are maintaining the temperature within the stipulated limits.

The indigenously built 975-kg satellite was shot into space following a magnificent launch by the Soviet Vostok rocket from the Baykonur Cosmodrome shortly after 1213 Indian Standard Time.

The launch was witnessed, among others, by the Indian ambassador to the Soviet Union, Mr T. N. Kaul, the chairman of the Indian Space Commission; Professor U.R. Rao; and the Glavkosmos chairman, Mr Aleksandr Dunayev. The satellite is to go through several postlaunch maneuvers and is expected to take its scheduled slot in space in about a month's time.

The 65-crore-rupee IRS-1A is the heaviest satellite to be built by India. It is designed to operate for a minimum of 2 years and will fly over the same point of earth once in 22 days. The satellite carries three self-scanning cameras that will take pictures in four different colors.

The orbit of the satellite will be continuously adjusted to ensure that all imageries are taken everyday around 1025. The data collected by the satellite will be of immense use in agriculture, forestry, geology, and hydrology. Besides the earth station near Hyderabad, a set of five regional remote sensing service centers have been set up to receive images and data from the satellite.

The prime minister has described the successful launching of the satellite as a major milestone in India's remote sensing program. Making a statement in both the houses of parliament, Mr Rajiv Gandhi said India now becomes the fifth nation of the world after the United States, the Soviet Union, France, and Japan to have accomplished the remote sensing of the earth resources from space.

The prime minister's announcement of the successful launching was cheered by the members with the thumping of desks. He extended his heartiest congratulations to the team of scientists, engineers, and supporting staff, whose dedicated efforts over the last 5 years have brought this great success to the nation.

India Plans To Launch Microwave Remote Sensing Satellite
BK1211626 Delhi Domestic Service in English
1530 GMT 21 Mar 88

[Text] India plans to launch the sophisticated microwaveremote sensing satellite by 1993-94. The chairman of the space commission, Dr U.R. Rao, told newsmen in New Delhi that preliminary work has already begun in this complex area of space technology. Dr Rao said negotiations are on for joint launch facilities to minimize expenditure.

#1995

Xinhua: India Develops Electronic Satellite Filters
HK110830 Hong Kong XINHUA in English
0540 GMT 10 Mar 88

[Text] New Delhi, March 10 (XINHUA)—Indian scientists have succeeded in Developing electronic filters for satellites, which India used to rely on imports, local press reported today.

The lightweight filter "mux demux" is made of invar, an alloy of iron and nickel. Machined in sections and plated with silver before assembly, the filter has a low coefficient of expansion.

The Indian Space Research Organization (ISRO) has decided to use 40 indigenous filters in the second generation Indian National Satellite System (INSAT-II) series of satellites, according to sources from the National Aeronautical Laboratory (NAL), which developed the filter in collaboration with ISRO in Bangalore of Karnataka State.

The filters will help save 50 million rupees (3.85 million U.S. dollars) in foreign exchange per satellite, the sources said.

#6976

India: 8 Earth Communication Stations Brought On-Line
BK190926 Delhi Domestic Service in English
0830 GMT 19 Mar 88

[Text] Eight earth stations set up by the Department of Telecommunication have started working in remote and backward areas to provide distant telephone facility. They are in Himachal Pradesh, Jammu and Kashmir, Arunachal Pradesh, Rajasthan, and Tripura. According to a press release, 42 more such stations will come up in remote areas in the north-eastern region, Andaman and Nicobar Islands, and Lakshadweep. Estimated to cost 50 crore rupees, the stations will communicate via INSAT-1 B with other places in the country. The department has also undertaken telecom development in Andaman and Nicobar Islands and Lakshadweep.

#1742

Indian Company Develops Bilingual Electronic Teleprinter
55500071 Madras THE HINDU in English
23 Jan 88 p 3

[Text] Madras, Jan 22. The Hindustan Teleprinters Ltd. (HTL) has manufactured 500 bilingual electronic teleprinters and handed them over to the Department of Telecommunications for testing. During the current year, HTL has planned to manufacture 4,500 machines, of which 2,500 will be bilingual, according to Mr. R. P. Subramanian, Chairman and Managing Director, HTL.

As part of its modernisation programme, HTL has come out with a new product—electronic teleprinters. During 1986-87, it manufactured 3,000 machines carrying Roman script. In addition, it has developed with the cooperation of Telecommunication Research Centre and the Department of Telecommunications a bilingual model electronic teleprinter. Development of this model is considered easy by virtue of storage and translation facilities built in language electronic teleprinters.

Simultaneously, HTL is concentrating on its research and development efforts to achieve results through involvement with academic bodies and industrial units. One such programme is the collaborative venture with the Anna University for manufacturing a Roman/Tamil model bilingual electronic machine and this is in an advanced stage.

The DOL had made it obligatory for all Government departments and public sector undertakings to procure only the bilingual model for electronic teleprinter for their needs, he said.

Mr. Subramanian told THE HINDU that HTL believed in Hi-tech product of hi-quality which alone would ensure customer satisfaction.

With a sales turnover of over Rs. 19 crores, HTL was now paying greater attention to producing products in the area of data communications. The company would be participating in the Department of Telecom's tender for Packet Switching network.

/09599

IRAN

Earth Satellite Station Becomes Operational

NC130700 Tehran Domestic Service in Persian 0430 GMT 13 Mar 88

[Text] Yazd Satellite Station—The earth satellite station for Network Two of the Vision of the Islamic Republic of Iran in Yazd has become operational. According to the Central News Unit, the station began functioning with the efforts of the maintenance and repair unit for FM and television transmitters of the Yazd Center to provide better audio and video reception on the occasion of the Holy Prophet's Mab'as anniversary.

#0661

Foreign Ministry Protests VOA Broadcasts

LD291534 Moscow TASS in English
1527 GMT 29 Feb 88

[Text] Moscow, February 29 TASS—The Soviet Foreign Ministry today declared a strong protest to the U.S. Embassy in Moscow over the dramatically increased subversive thrust of the U.S. government-run radio service Voice of America's broadcasts to the Soviet Union lately.

Among other things, these broadcasts have been crudely distorting historical facts, making provocative insinuations about the growth of nationalist sentiment in the Baltic republics of the Soviet Union and expressing U.S. support for forces that do not accept the social system in this country.

The broadcasts can only be described as flagrant interference in the domestic affairs of these republics and the Soviet Union and as hostile action aiming to undermine the friendship of the peoples of the Soviet Union and its national-state arrangement.

They have been obviously at odds with the spirit of understandings reached in December 1987 in Washington during a Soviet-U.S. summit there and directed at pting right and steadily improving relations between the two countries.

The contents of the broadcasts have aroused the profound indignation of the Letts, Lithuanians, Estonians and all other Soviet people. This has been vividly demonstrated by their speeches at protest rallies and statements in the press. Special resentment has been caused in the Soviet Union by the V.O.A.'s blatant attempts, in particular in its broadcasts on February 22 and February 23, to present the policies of perestroyka, glasnost and democratization pursued in the USSR in a bad light.

Expressing the wishes of voters and their demands for an end to the undisguised provocations, the Supreme Soviets of Latvia, Lithuania and Estonia have adopted statements of protest over the gross U.S. meddling in the internal affairs of the sovereign republics, which is a serious breach of the U.N. Charter, the Helsinki Final Act and norms of international law.

The Soviet Foreign Ministry, protesting strongly over these V.O.A. broadcasts, noted that such broadcasts contradict the goal of preventing confrontation and facilitating more stable relations between the USSR and the U.S.

The United States, where the rights of national minorities are flouted so arrogantly and where racism and discrimination of the indigenous population are rampant, is in no position to teach democracy and harmonious relations between nationalities to other nations.

PRAVDA Reader Hits VOA for False Allegations Against USSR

PRAVDA in Russian on 26 Nov 87 on p 5, under the title "It's Dishonorable, Gentlemen," publishes a letter to the editor on VOA's "unscrupulous and dishonorable" broadcasts to the USSR. For the text of this letter see pp 94-95 of the JPRS SOVIET UNION/POLITICAL AFFAIRS report, JPRS-UPA-88-004 dated 29 January 1988.

First Live Moscow-Bonn TV Link Established

INF Treaty Discussed

LD250918 Moscow TASS in English
0817 GMT 25 Mar 88

[Text] Moscow March 25 TASS—The first live TV link between Moscow and Bonn, which started today immediately after the midnight in Moscow and ended when it was midnight in Bonn, was devoted to Soviet-West German relations and the most vital international issues. The meeting, which lasted more than two hours, was attended by deputies of the USSR Supreme Soviet and the Bundestag of the Federal Republic of Germany (parliament), students from Moscow schools and Bonn University.

The problem of the earliest ratification of the Soviet-U.S. intermediate nuclear forces treaty sparked a lively debate. Both Soviet and West German participants spoke in favour of following up the first move, which provides for the elimination of Soviet and U.S. medium- and shorter-range missiles, with a 50 per cent cut in strategic offensive weapons, conventional weapons and by a chemical weapons ban.

West Germany supports the INF Treaty without reservations, said Egon Bahr, chairman of the parliament's subcommission on disarmament and arms control. "We are also for this document to take account of Pershing-1A missiles situated on the territory of the FRG. The problem of strengthening the system of international security is the key issue, which is crucial for determining how confidently mankind will look into the future. We need to lay down the principles of stability in Europe and in the conventional arms area, at the lowest possible level, and to create a nuclear-free corridor in Europe. We no longer need nuclear weapons."

Speaking of the ratification of the treaty, Yevgeniy Velikhov, vice president of the Academy of Sciences of the USSR, chairman of the Energy Commission of the Soviet of Nationalities of the USSR Supreme Soviet, said: "It is my understanding that on the whole the chances of ratifying the treaty by the USSR Supreme Soviet are very high because there are not any objections in principle to it. This treaty is also important in that it will help eliminate the whole class of weapons and mark a step towards a completely new attitude to the problems of on-site verification of the treaty."

Colonel General Vadim Lobov, first deputy chief of the General Staff of the Armed Forces of the USSR, stressed that the Soviet Union was taking decisive measures to defuse the international situation and to create favourable possibilities for developing interstate relations. "The USSR," he said," proposes to reveal in the course of the talks the disbalance and asymmetry in the armaments of the countries—members of the Warsaw Treaty and the NATO bloc. The elimination of weapons must be mutual rather than unilateral."

Sergey Losev, director-general of the TASS news agency, who serves on the Commission for Foreign Affairs of the USSR Supreme Soviet, noted that the Warsaw Treaty Organisation was yet to receive a reply to its serious proposals on the reduction of arms and armed forces in Central Europe. "The asymmetric reduction would not correspond to the balance of forces, because, one can say that the USSR and the Warsaw Treaty countries have an edge in central Europe on some components, like tanks and artillery, while NATO has the advantage on other components, in particular, strike aviation and the balance of forces on the southern flank, where the Warsaw Treaty is opposed by NATO countries."

Bilateral Ties Appraised

LD251029 Moscow TASS in English
0931 GMT 25 Mar 88

[Text] Moscow March 25 TASS—"History teaches us a very important lesson: When relations between Russians and Germans are good, it is also good for Europe. When these relations go awry, all Europe becomes feverish," said Sergey Losev, TASS director general, president of the USSR-FRG Society and member of the Foreign Affairs Commission of the Soviet of the Union of the USSR Supreme Soviet, during the first live Moscow-Bonn TV linkup which was held today. West German parliamentarians from all parties represented in the Bundestag had a TV dialogue with their Soviet counterparts—deputies to the USSR Supreme Soviet. They had a two-hour thorough conversation on important international issues, relations between the two states, acute issues of domestic life of the FRG and Soviet perestroyka.

Sergey Losev noted that now the two countries were on the eve of a new favourable advance in mutual relations: An understanding was reached on a visit by Federal Chancellor Helmut Kohl to Moscow and the following visit by Mikhail Gorbachev, general secretary of the CPSU Central Committee, to Bonn.

There were ups and downs in Soviet-West German relations, but now there are all prerequisites for them to improve, despite differences in the social and political systems, said Egon Bahr, a deputy to the West German Bundestag from the Social Democratic Party of Germany. Security questions, closely linked with solution of disarmament problems, are pivotal for relations between the USSR and the FRG.

Parliamentarians should think of how they can ensure the process of detente and contribute to creating a favourable climate for this, said Hans Sterken, chairman of the Bundestag Foreign Affairs Commission. It is high time to turn from the dialogue conducted now at various levels to specific actions, pointed out the West German parliamentarian.

Participants in the Soviet-West German TV dialogue concurred in the opinion that personal contacts and an exchange of tourist groups between the two countries are not active enough. They pointed to the need for contributing in every way to expanding personal contacts, the growth in youth exchanges, including in the forms that seemed impossible in the past. Otto Schilly, a representative of the Greens Party, noted that ordinary people, and not only statesmen, should talk politics.

Soviet and West German linkup participants expressed mutual desire for making their contribution to improve mutual understanding between the peoples of the USSR and the FRG. They noted that both Germans and Soviet people understand well their responsibility to history and expressed a wish to strive for establishment of friendly relations between peoples and states.

Schoolchildren of a Bonn secondary school and university students studying Russian were invited to participate in the TV linkup on the West German side, and secondary school and university students studying German—on the Soviet side.

Afghanistan, Armenia Reviewed

LD251042 Moscow TASS in English
1006 GMT 25 Mar 88

[Text] Moscow March 25 TASS—The first live TV link between Moscow and Bonn was held today to discuss vital international issues and Soviet-West German relations, providing a better insight into what makes the peoples of the two countries tick.

Deputies of the USSR Supreme Soviet held a two-hour TV dialogue with their West German counterparts—members of the West German Bundestag. Soviet and West German participants in the meeting expressed their mutual striving to contribute to better understanding between the peoples of the USSR and FRG, to stronger system of international security.

Replying to questions by the West German audience on the situation around Afghanistan and the situation in Nagorno-Karabakh, TASS Director-General Sergey Losev, member of the Commission for Foreign Affairs of the Soviet of the Union of the USSR Supreme Soviet and president of the USSR-FRG Society, said that the Soviet position on the settlement of the situation around Afghanistan was clear: We are ready to pull out troops within the acceptable time-frame. This was permanently on the agenda of the Geneva talks held through the personal envoy of the U.N. secretary-general. Suddenly,

at the final stage when the agreement was practically ready, the Pakistani side advanced completely new demands, delaying the signing of the agreement. Those who are putting off its signing, also take on themselves full responsibility for the delay in settling the conflict. The Pakistani side must give a thought to the possible consequences first of all.

On Nagorno-Karabakh, Sergey Losev said that the Supreme Soviets of Union republics had already determined their position on the problem. The Presidium of the USSR Supreme Soviet in its resolution is fully guided by Article 81 of the USSR Constitution, which says that "the sovereign rights of Union republics shall be safeguarded by the USSR."

The problem is a complex one, Sergey Losev said. But then who does not have nationalities problems? The USSR has more than 100 peoples and nationalities. We can take pride in what we have achieved in solving the nationalities question, which is a live and developing problem. But we made a mistake in the past believing that the nationalities issue was solved once and for all. It must be tackled permanently because new problems keep arising, while the failure to solve them gives rise to unsound situations like the one in Karabakh.

The MP reminded that the FRG, which had one nationality, also faced problems, for example, with foreign workers. Similar problems existed in Belgium.

The problem of Nagorno-Karabakh will be solved. The Political Bureau of the CPSU Central Committee on Thursday took a decision to speed up the socio-economic development of the Nagorno-Karabakh autonomous region, i.e. to satisfy the really existing complaints. It is important to create a microclimate that will be conducive to tackling the issue. One must not put pressure or give vent to one's emotions. Emotions in such painful issues are hardly the best way to solving them, Sergey Losev said.

TV Antenna Erected in North

LD240653 Moscow Domestic Service in Russian 0700 GMT 23 Mar 88

[Text] The highest television antenna in the north has been erected in the village of (?Kalmagorskiy), Astrakhan Oblast [as heard]. The villages of the polar Mezenskiy Rayon have been provided with the opportunity of seeing television broadcasts from the capital via the Moskva space communications system. Besides the antenna a special building will be erected in which very powerful television transmitters will be installed, and then the villages of the remote rayon will begin to receive color television broadcasts from the capital on two channels.

EUROPEAN AFFAIRS

CCIR To Consider European Proposal for HDTV Standard

36980143a Paris AFP SCIENCES in French 26 Nov 87 p 35

[Article: "Official Recognition of the European HDTV Standard"]

[Text] On 20 November, in Paris, we learned from a source in the industry that the European high-definition television standard (HDTV) had just achieved a significant success: it was officiallly recognized by the International Radio Consultative Committee (CCIR). Indeed, at an interim CCIR meeting held in Geneva on 2-18 November, the representatives of telecommunication administrations from all over the world actually recognized the existence of a second HDTV standard, concurrently with the standard proposed by Japan and the United States.

In May 1986, at a meeting in Dubrovnik (Yugoslavia), these two countries had attempted to have their standard recognized by the international community—although it is incompatible with existing TV sets, in Europe as in the United States. After a long battle, the CCIR had finally granted a 2-year period of reflection, thus enabling the Europeans to progress in the definition of their project, in the context of the Eureka program.

"Even before 1988, the Europeans had obtained that the proposals made in the name of six national administrations (France, Great-Britain, FRG, the Netherlands, Italy and Belgium) be considered as a proposed world standard," Mr Jean Caillôt, general manager of Thomson International, who attended the meeting, told the AFP [French News Agency].

Even though HDTV transmitters and sets to the European standard are not expected to be used before 1992, this first recognition from the CCIR is important at this time, as it supports the technology used by TV-SAT and TDF-1. Actually, the standard for the future HDTV is compatible with that used by these two satellites, the D2 Mac Paquet standard. In other words, viewers equipped to receive programs broadcast by these satellites will also be able to receive high-definition television when it becomes available.

On the other hand, the standard proposed by the Japanese and supported by the United States (in particular by CBS) is incompatible with current TV systems (Pal-Secam type) and with the D2 Mac Paquet standard. Indeed, it is based on electric current as it exists in Japan and in the United States, i.e. 60-Hz current, whereas Europe and most of the world are using 50-Hz current. Conversion from one frequency to the other is extremely complex.

In addition, the Europeans and Japanese differ on the number of lines on the screen: 1,250 lines for the European HDTV, 1,125 for the Japanese. The only point on which they agree is the screen size (16/9), which is larger than present screens and better adapted to the size of movie images.

9294

EC Interconnection Networking Plan Advancing

COSINE Goals

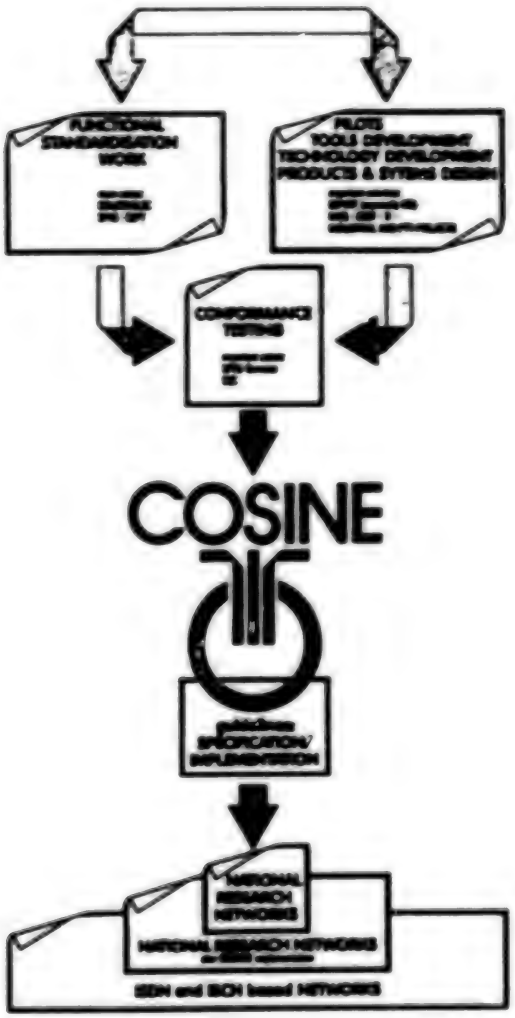
5500A030 Brussels IES NEWS (COSINE HELPS RESEARCHERS COMMUNICATE insert) in English [date and place of issue not given]

[Brochure published as insert in bimonthly newsletter]

[Excerpts] Hundreds of thousands of researchers in Europe are increasingly using computer systems. The need for new means of communication facilities becomes ever more apparent. Networks must be harmonised, equipment standardised and new services created. Directories of computers and services—electronic "Yellow Pages"—will point the way to persons, information sources and computer facilities anywhere in Europe.

COSINE (Cooperation for Open Systems Interconnection Networking in Europe) is a EUREKA project. COSINE was brought to life to establish an advanced communications network for the hundreds of scientific and industrial research institutes all over Europe. Researchers and professionals at their work stations need practical facilities and data communications. COSINE strives to make present-day research networks in Europe interwork. A language researcher in Helsinki should work as easily with his colleague in Valencia as with his neighbour next door. The environment of data communications services that COSINE wishes to establish, is based upon the international standards ISO/OSI and recommendations of the CCITT. OSI stands for Open Sytem Interconnection. The computer communications services will as much as possible apply common carrier services and commercially available products.

COSINE fulfills more purposes than just providing a practical infrastructure. The second goal of COSINE is of an economic nature: the creation of a large home market for the European information technology industry. COSINE creates a market pull for OSI products, giving the European industry an opportunity to become a key supplier of open systems for data communications. Europe can gain an edge over the United States and Japan by broadening the community of users that adheres to OSI standards. This market pull aspect of COSINE complements the technology push actions towards OSI which are being encouraged through the ESPRIT and other programmes. The hardware and software supply industry needs to provide comprehensive marketing and maintenance support to these new customers.



By serving this dual goal, COSINE reflects the general objective of all EUREKA projects, to improve the competitiveness of Europe's industries by means of industrial, technological and scientific cooperation.

COSINE's Job in Progress

COSINE aims at new operational communication services and a common infrastructure as quickly as possible. Therefore, it is uniting governments, standardisation bodies, users of computer networks and the information technology industry.

With OSI Standards Systems Talk to Each Other

To set standards is a first step, to apply them in products and services is a second one. COSINE closely monitors the European standardisation bodies CEPT [European Conference of Postal and Telecommunications Offices], CEN/CENELEC [European Standards Committee/European Committee for Electrotechnical Standardization], the industrial group SPAG [Standards Promotion Application Group], as well as standardisation developments in the United States and Japan. On a practical level, the project keeps record on conformance testing. This takes place, among others, with SPAG Services SA, as well as under the auspices of the Commission of the European Communities (CEC).

The work of COSINE is divided into two phases, a specification phase and an implementation phase. The specification phase has already started. Much of the technical work is done by an association of present-day and prospective network operators, the Associated Networks for European Research (RARE). RARE's activities involve identification of user needs, selection of new services, definition of hardware and securing interconnection of national datacommunications services. Also, RARE will establish an accounting model and directories of available services, specify testing and diagnostic tools, and evaluate PTT services. The technical work programme will thus cover basic facilities for a managed infrastructure.

COSINE's goal to build a common OSI infrastructure with a large demand for new products, becomes most apparent in the implementation phase. This final phase will start in 1988 and involves a shift of emphasis from international and centralised activities, to national and decentralised activities. The theory of European policy making must be put into practice in individual countries, as well as the idea of putting OSI to work in an open federated environment. The technical work covers basic requirements for an infrastructure providing interactive services, services for message handling, file transfer and directories. COSINE has set the stage for realising a harmonised infrastructure of networks in the very near future.

New common application services:

- interactive data communications infrastructure (X.3, X.28, X.29)
- file transfer and access management (FTAM)
- message handling (MHS X.400)
- directory services
- accounting services

Future service planning:

- screen oriented dialogue
- remote job entry
- graphics
- virtual terminal support
- broadband communications

COSINE: Who Will Benefit?

An extensive potential of professionals and scientists is served by the COSINE initiative. Researchers of any discipline in academia or industry can reach a growing community of networks users. Institutions and people involved in CEC programmes—such as RACE, BRITE and ESPRIT— as well as in the EUREKA projects belong to the COSINE community.

In the end, even commercial professionals in any section of the economy will benefit. Harmonised computer communications are needed everywhwere.

The following parties are participating in COSINE: Austria, Belgium, Denmark, the Federal Republic of Germany, Finland, France, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the European Community. Together, they have established the COSINE Policy Group. Yugoslavia has shown an interest to join.

For detailed information on COSINE and RARE, one can telephone, write, or contact one of the EuroKom numbers given below:

COSINE Secretariat

Nicholas K. Newman, John Beale (project officer)

Commission of the European Communities

Directorate-general XIII, Office A25-7/13

Rue de la Loi 200 B-1049 Brussels (Belgium)

Telephone: +32 2 235 5976

Telex: 21877 COMEU B

Telefax: +32 2 235 0655

EMail: Nicholas Newman EuroKom

For more information on COSINE, subscribe to the bimonthly newsletter IES NEWS, with its special COSINE section published on behalf of the COSINE Policy Group, with the support of the Commission of the European Communities at:

IES NEWS

Mr. P. Popper

European Institute for Information Management

13, Rue de Bragance

L-1255 Luxembourg

Contribution for IES NEWS-COSINE section will be welcomed by:

WERNER & THOOLEN

W.G. Plein 232

1054 SE Amsterdam

The Netherlands

Telephone: +31 20 185 191

Telex: 10611 AOC NL

EMail: Marcel Werner W&T EuroKom

Members of the COSINE Policy Group Bureau

Peter A.J. Tindemans, chairman (Netherlands)

Johan Martin-Loef, vice chairman (Sweden)

Keith Bartlett, vice chairman (United Kingdom)

RARE Secretariat

James S. Hutton

P.O. Box 41882

1009 DB Amsterdam

Telephone +31 20 592 9444

Telex 10262 hef nl

Telefax +31 20 592 5155

Yugoslavia Joins

55004030 Luxembourg IES NEWS in English Dec 87 p 10

[Article: "Yugoslavia Becomes 20th Member Country"]

[Text] Yugoslavia has officially joined COSINE as its 20th member country. The representative of the Yugoslavian Jozef Stefan Institute in Ljubljana, Prof. Dr. Tomaz Kalin, signed the participation document on the occasion of the COSINE Policy Group Meeting of November 5-6. The first international data-communication links are expected to be operational shortly; Yugoslavia has two planned data network connections to foreign countries.

The following parties are participating in COSINE: Austria, Belgium, Denmark, the Federal Republic of Germany, Finland, France, Greece, Iceland, Ireland, Italy, Luxemburg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, Yugoslavia and the Europe Community.

Transatlantic Links

55004030 Luxembourg IES NEWS in English Dec 87 p 9

[Article by N.K. Newman of the EC's DG XIII, Brussels: "Rationalisation of Trans-Atlantic Links"]

[Text] COSINE participated in the first meeting of what became provisionally known during it as "The Necessary Ad-Hoc Co-ordinating Committee" or NACC. This was convened at the initiative of William Bostwick of the U.S. Department of Energy and James Hutton, Secretary General of RARE, who where co-Chairmen, and followed an earlier exploratory meeting. The aim was to explore problems and possible solutions in the area of medium to high speed trans-Atlantic data communications links.

The meeting was attended by representatives of the Department of Energy, the National Science Foundation, the Defence Advanced Research Projects Agency (DARPA), the Internet activity, NASA and the Department of Health and Human Sciences on the American side, and by representatives of RARE, COSINE, EUNET, EARN [European Academic Research Network], University College London, the U.K. Joint Network Team, DFN [German Research Network], and the Commission of the European Communities on the European side.

Amongst the problems mentioned were the cost of multiple trans-Atlantic links and their general co-ordination and management, patents, copyright of transmitted data and security. Until now, each individual U.S. agency has tended to install lines to each individual European country of interest and vice versa. This was deemed wasteful of resources, hard to manage and should be rationalised.

It was agreed that there should be a common open infrastructure, open to other countries to join, for the co-ordination of intercontinental links in general. It would need to recognise the three dimensions of the policy, management and organisation, and technical issues, and act as a pole of attraction for other parts of the world. It would need global vision and yet achieve practical results on the links most immediately important, in particular between the U.S. Internet and the U.K and Germany for particular requirements. The meeting was seen by its participants as being of great seminal importance for future intercontinental co-ordination, following on the intracontinental coordination which Europe had already embarked on (RARE and COSINE) and which the U.S. was currently embarking on.

The meeting defined its activity as follows:

"The purpose of this committee is to agree and progress a program to achieve interoperable networking services between participating entities (initially U.S. and Europe) to support open research and scholarly pursuit. Policy, management and technical issues will be examined, based on agreed requirements."

There will be a further meeting in approximately six months time. In the interim, tasks will be identified and carried out by each side; it was suggested that RARE should co-ordinate the European side.

OSI Product Bottleneck

55004030 Luxembourg IES NEWS in English Dec 87 pp 10-11

[Article: "Survey of COSINE National Activities: Waiting for OSI- Products"]

[Text] Many COSINE member states have established, or are about to establish, agencies or projects to operate national academic networks. Most of these are in favour of adopting OSI, but are awaiting the availability of stable industrial products before making the transition. Because the emergence of such products cannot at present be predicted, firm plans have not yet been drawn up. This raises the question of whether sufficient market pull will be generated to induce industry to produce the products, in the absence of clear demand. These pragmatic constraints prevent governments or network operators from imposing OSI conformance in procurement policy.

Most agencies have stated that OSI procurement will not be made mandatory until sufficient products are available. The following are some facts collected in the Management Summary of the COSINE national activities report by Dr. John Beale, COSINE's Project Manager.

In all countries researched, overall responsibility for academic research networking lies with the Ministries charged with education, research and technology. All national agencies or projects preparing operational national academic research networks expressed requirements for electronic mail, file transfer, remote login and remote job entry.

Current Infrastructures Vary Considerably

Existing infrastructures vary greatly in topology and organisation, but show a degree of commonality in the services offered. All countries have networks which offer electronic mail, file transfer, terminal access, and remote job entry, although these services are not all offered on all networks. Extensive use is made of existing international research networks, most notably EARN and EUNET. Most networks are constructed from a combination of leased lines, dial-up lines and X.25 public networks.

In Austria, France, Italy, Norway, the Netherlands and Switzerland one or more of the networking communities will migrate to OSI on an experimental or demonstration

basis. The expectation is that the benefits gained by these communities will encourage other groups to move to OSI, and that the OSI software that they acquire or develop will form a product base available to other groups.

In all countries surveyed, it will be impossible to migrate all machines within the community at the same time; gateways will be required. To avoid disruption to users, routing to conversion gateways should be automatic when it is required. Therefore a directory service should be set up to provide necessary routing information both to end systems and to converters.

How To Involve Industrial Researchers?

From the survey findings it is clear that the majority of CPG [COSINE Policy Group] representatives have focused on their respective academic communities. The question of how to involve industrial researchers in the project has not yet been fully addressed, John Beale concludes in his Management Summary.

It is also clear that, while commitment to OSI in principle is wide ranging, commitment in terms of resources is not. In general, network providers see the provision of services to their users as the highest priority, and do not wish to risk the disruption they anticipate in a move to OSI until the net advantages are clear. OSI must be supported by stable and reliable products if its advantages are to be exploited.

Most networks are currently based on leased lines or a mixture of leased and publicly available (packet) switched lines. Leased lines are generally favoured for reasons of cost, capacity and reliability. If the COSINE objective of utilising public data networks is to be achieved, then a cost performance benefit must be demonstrated to operators. This may require detailed analysis of costs currently incurred in operating private networks over and above the transmission charges, so that true comparisons can be made.

Serious consideration must be given to the way in which the market pull effect required for the success of COSINE will be generated. It will be necessary to motivate local managers sufficiently to make suppliers clearly aware of demand. To do this will require that managers see not just the theoretical OSI advantages of open communication and supplier independence, but also a practical advantage of access to a large community of other users and services. A user community which is providing a good demonstration of use is the Finnish FUNET. Here, a large number of users share a network providing useful services. Potential users in both universities and industry are requesting connections at a great rate because they see the benefits enjoyed by existing users.

Italian Participation Awaited

5500/4030 Luxembourg IES NEWS in English Dec 87 pp 11-12

[Article: "Moves to OSI Networking in Italy"]

[Text] In Italy the evolution of academic networks is not yet being planned by an officially recognised organisation. But everybody agrees that this must be done and that migrating to OSI protocols is the best choice. This statement was made in a report which Dr. Stefano Trumpy of the CNUCE Institute of CNR (National Research Council) submitted to the COSINE Policy Group (CPG) Bureau. The CPG Bureau has assessed the current status of networking in the participating countries. To promote coordination in OSI migration activities, GARR (Research Network Harmonisation Group) was created, a committee with delegates from the three major research organisations and from the main academic computing centres in Italy.

Although GARR has not yet prepared a detailed plan for OSI migration, it is reasonable to foresee that there will be an intermediate phase in which SNA and DNA protocols will be used over X-25 leased lines. As soon as OSI products are available, they will be used initially via the private X-25 network and in parallel with SNA and DNA. In a second phase, usage of SNA and DNA protocols will be limited to the sites that require a centralised network management. At this point it is anticipated that the part of the private X-25 network will be replaced by public PSDN [Public Switched Data Network] connections.

GARR Forum for COSINE

GARR is the forum where coordination of the activities of the different institutions involved in OSI migration takes place. Although presently money is budgeted and spent by each organisation, GARR is proposing measures for the rationalisation of the expenses for current infrastructures and for development of projects. This includes participation in international projects such as COSINE and RARE. GARR was set up by the Ministry of Scientific Research and Technology. In addition to organisations that operate networks, the harmonisation activities are directed at the Italian PTT and some Ministries, public organisations and institutions such as ENEA (National Alternative Energies Authority), INFN (National Nuclear Physics Institute), CREI (Center for a European Data Processing Network) and the Forum Telematico. Also included in the scope of harmonisation are companies with public funds such as Italcable and Telespazio, as well as private companies already participating in the project OSIRIDE. That group includes IBM and Olivetti. Among the user groups affected by the standardisation and migration policy making are universities, research institutions and companies, as well as institutes in the public sector. The services these groups use at present are electronic mail and computer conferencing, file transfer, remote job entry and remote login.

Harmonisation Work on the Way

Historically, three major independent research organisations coexisted at national level: the CNR, the ENEA and the INFN. Each organisation has independently built its own network and only recently have these networks started to interact, with the consequence that some harmonisation work is developing. Furthermore, there are three networks provided or planned by the major computer centres or consortia of computer centres used by the academic community, CILIA, CINECA and CSATA. These networks were built in order to provide access to the facilities of the centres for remote users around the country.

In the past, the three governmental research organisations CNR, ENEA and INFN and the universities had independent plans for networking. This led to the creation of uncoordinated networks based on different protocols. In recent years, the various networks have increased considerably. Their nodes are not necessarily members of the parent organisation. In many cases the same site is a node on more than one network.

Usually, the institute that maintains the international connections is considered responsible for the evolution of the network within the country. The following table lists the institutes responsible for each international network:

ARPA	CNUCE (CNR)	Pisa
EAN	IASI (CNR)	Roma
EARN	CNUCE (CNR)	Pisa
SPAN	INFN (CNR)	Bologna
UUCP	Systems & Management (Private company)	Torino

Besides the international networks, there is a complex series of anarchical VM/Passthru networks connecting most VM nodes of EARN and SNA network of ENEA. This has been kept separated from the rest of EARN until now, although there are plans for a connection.

Waiting for OSI Products

The CNR networking is intended to be an instrument for experimenting with an.. validating new OSI products within the OSIRIDE project, which is a program carried out by suppliers. OSI levels 4 and 5 and MPS implementations are already being tested. OSIRIDE is also currently defining FTAM options, functional units and document types, based on the latest DIS version of ISO 8571. Definition of test sequences and test scenarios for level 5 implementations has just started. A study is being made to examine the X-25 switches available on the market, in order to build an X-25 network. Preference is being given to low cost switches which allow an easy integration of private and public networks.

INFN has already announced its commitment to OSI standards. However, the actual migration will be delayed until the OSI products commercially available have reached a sufficient level of reliability and performance. The migration is expected to take place during 1988.

ENEA will soon have in two nodes with software interfaces to X-25. The organisation has made no commitment, for the time being, to move to OSI. Agai.., final decision is subject to the general availability of commercial products.

CINECA has built a private X-25 network, interconnected with the public communications facility ITALPAC. The principal use of this kind of network is its remote login function, but it can also be used for transporting SNA and DECNET traffic. Furthermore CINECA is using a private NETWAY network for a Virtual Terminal function, waiting for standards to be released. Plans for migration to OSI have already been defined. They involve the installation of standard products, as soon as these are officially released and reliable, on the various machines (IBM, CDC, DEC, CRAY) and on the NETWAY network.

CILEA agrees with the proposed policies for OSI migration. However, as is the case with the other network systems, the actual migration will be delayed until the commercially available OSI products have reached a sufficient level of reliability and performance. The first service expected to be implemented in the heterogeneous CILEA environment in the near future, is an X-400 Message Handling System. This service can usefully serve as a gateway between different mail systems as implemented in CERN.

The CSATA network will support a full OSI environment when OSI products become commercially available and there is a guarantee of reliability and performance. The migration date for IATINET is also expected during 1988. The OSI services to be supported are file transfer, message handling and directory services.

/12232

SPAG Creating Consortium for Standardization

5500a023 Amsterdam COMPUTABLE in Dutch 11 Dec 87 pp 1, 8

[Article by Ate van Eek: "SPAG Initiative Puts EC Under Pressure: Consortium for Broadband Standards, Cooperation With COS"; first paragraph is COMPUTABLE introduction]

[Text] Brussels—It looks as if SPAG [Standards Promotion Application Group] Services is not waiting for the EC initiative involving the establishment of a European Telecommunications Standards Institute (ETSI), whose start, due in March, is being hampered by various difficulties. SPAG now wants to create a consortium by

itself. It has also recently reached an agreement with COS (Corporation for Open Systems), its American counterpart, to coordinate their activities.

In addition to the standardization of testing methods for office and factory automation systems, SPAG now wants to develop tools for testing (future) broadband networks. To that end it seeks to set up a consortium including the PTT's and manufacturers and users who are not yet involved in SPAG. Thus, the group seems not to be waiting for the creation of the European Telecommunications Standards Institute as was proposed by the European Commission in last summer's Green Paper.

P. d'Oultremont, managing director of SPAG Services commented on the creation of the consortium to COMPUTABLE's Brussels correspondent: "At the moment negotiations are still under way. The major problem, however, is to find a fair and clearly defined balance between the PTT's and the other participants." SPAG will be able to take part in the RACE (Research and Development in Advanced Communication Technologies in Europe) project, which was initiated by the EC and endowed with almost 1.5 billion guilders.

Finding a balance between PTT's and other participants also hampers the EC initiative to set up a European institute for telecommunications standards. During the debate on the Green Paper, ECTUA, the European Council of Telecommunications Users Associations, pointed out to the European Commission that it fears that the proposed voting ratio within the institute—50 percent for the PTT's, 50 percent for users and industry—would be too much in favor of the PTT's: "This ratio will only confirm the PTT's dominance in the standardization process... Users generally have fewer financial resources to 'buy off' votes."

The ETSI should start in March 1988, at least that is how it was initially planned. However, meeting this starting date may be extremely difficult because of internal disagreements (including the voting ratio mentioned above) and the shortage of highly qualified telecommunications specialists, which strongly hampers the recruitment of sufficiently skilled staff. The creation of a consortium by SPAG may however still put the EC (and the parties involved) under pressure to meet the March deadline.

Although the SPAG initiative will fall within the scope of the RACE program, it will probably not belong to the initial series of projects already selected by the EC and to be made public this month. The second RACE round seems to be more likely. SPAG will have to consider how to transfer the achievements of narrowband communications to broadband applications (with transmission speeds of up to 2 megabits per second) using the existing standards.

After more than a year of discussions at various levels, the directors of SPAG and COS International from McLean, Virginia, have just signed an agreement "to standardize functional descriptions and testing tools and procedures in order to promote OSI/ISDN standards on an international scale." For the same reason contacts have also been established with the Japanese POSI [Promotion Conference of OSI] group. SPAG has created another link with America by obtaining the contract for the supply of tools for testing (free of charge) products that will be demonstrated at next June's Baltimore Enterprise Network Event (ENE'88). This show will be sponsored by the MAP/TOP users association.

After the fair SPAG will offer the testing tools to those who intend to implement the MAP 3.0 standard in hardware and software. These testing tools were developed in an ESPRIT project involving manufacturers and users such as BMW, British Aerospace, and Peugeot. The actual development was carried out at the German Fraunhofer Institute and the British Networking Center.

[Box, p 8]

Important Expansion

SPAG Services has lost one shareholder but has won five. Thomson has dropped out because it wants to concentrate exclusively on telecommunications in nuclear and military applications, thus turning away from commercial applications. The French concern sold its shares to Alcatel which joins the organization. In addition, SPAG earned another four quite important shareholders, the current numbers one and three of the computer industry, IBM and Digital Equipment Corporation, as well as British Telecom and Hewlett-Packard. The group was founded in 1986 by Bull, ICL [International Computers Limited], Nixdorf, Olivetti, Philips, Siemens, STET [Turin Telephone Company], and Thomson, and was joined later by AEG [General Electric Company], the French CGE [General Electricity Company], and (the British) GEC and Plessey.

25024

UK Releases Funds for Eureka HDTV Project

36980143b Paris AFP SCIENCES in French 30 Dec 87 p 25

[Article: "High-Definition Television: Rendezvous in 1990"]

[Text] The British Ministry of Trade and Industry has just made 2.5 million pounds available for the European HDTV project, HDT Eureka, the British Embassy in Paris announced on 22 December.

British experts, from the BBC and from LIBA (the agency which manages private television in Great-Britain) will play a major role in the first demonstration of the project, in September 1988 at the International

Broadcasting Convention in Brighton. The goal of these demonstrations, the British Embassy indicated, is to have the HDT Eureka high-definition television system adopted by the United Nations International Radio Consultative Committee (CCIR), whose next meeting will take place in 1990.

The Eureka 95 project was launched in July 1986, following a CCIR meeting in Dubrovnik (Yugoslavia), 2 months earlier, when the Japanese had attempted to have their HIVision system adopted as an international standard for HDTV; the project aims at continuing research in this field in order to strengthen the position of the European D2 Mac standard on the international scene.

The Japanese HDTV system uses 60-Hz 1,125-line interlaced scanning of the screen, offering a new image every 30 seconds. It is fully compatible with, and uses the same format as 35-mm movies. The HIVision standard aims at compatibility with one third of all countries in the world, where electric current is transmitted at a frequency of 60 Hz; they include Japan, the United States and Canada. However, this technology is handicapped by the fact that it is incompatible with 40 percent of the TV sets used in these countries.

9294

France, FRG Sign Accords With China

Alcatel Turnkey Equipment for Peking

55002436b Paris ELECTRONIQUE ACTUALITES in French 22 Jan 88 p 7

[Text] Alcatel NV has just signed in Beijing a comprehensive contract worth Fr580 million with the Peking telecommunications administration (BTA) concerning, notably, expansion of the telephone network in the Chinese capital.

The first part of the contract totalling Fr488 million, for which Alcatel CIT is the prime contractor, involves the turnkey installation of 10 additional "Alcatel E10" exchanges and 12 digital satellite centers representing a capacity of 155,000 heavy-traffic digital lines and 50,000 additional traffic circuits.

This equipment will be supplemented by digital transmitting equipment making it possible to develop the traditional telephone network into an integrated services digital network.

In Beijing, 26 of the 29 digital exchanges operated by the [telecommunications] administration are French (Alcatel) systems, including 24 "E10" exchanges.

At the same time, on 29 December, the subsidiary Cables de Lyon signed in Beijing an Fr92 million contract to supply telecommunications cables for the capital's network.

Finally, Alcatel CIT's subsidiary specializing in directional radio links, ATFH, has just been hired by the Chinese Postal and Telecommunications Ministry to put in two long-distance radio links.

These links of over 2,000 km in length in central and southwestern China will make it possible to transmit telephone communications and television images. The amount of the contract is unknown.

Siemens To Provide Equipment, Know-How

55002436b Paris AFP SCIENCES in French 3 Dec 87 p 5-6

[Text] Munich—Siemens and the People's Republic of China have worked out the main lines of a cooperation agreement for public switching, micro-electronics and the training of Chinese personnel in the new technologies, the West German firm reported on 1 December.

This agreement in principle, part of the cooperation agreement signed between China and Siemens in 1985, was concluded during the Beijing visit of the president of the Board of Directors, Karlheinz Kaske. Under it, a joint venture will be set up to assemble digital telephone exchanges. The firm's management in Munich was unable to specify the future plant's capacity. The West German firm is also planning to transfer technology in the field of microelectronics.

Finally, the agreement includes construction in Beijing of a technology center, the Beijing Technological Exchange Center, which will allow continuous training of 500 Chinese technicians every year in the fields in which Siemens operates. The first stone will be laid in the spring of 1988.

Siemens currently has four offices in China with 150 employees. Last year the West German firm achieved DM 300 million in sales. Kraftwerk Union (KWU), a division of Siemens that builds power stations, expects to conclude a cooperation agreement with China in the coming months to build a nuclear power facility at Qin Shan, 120 km south of Shanghai.

09805/09599

Bosch of FRG to Buy Part of Jeumont Schneider of France

55002436 Paris ELECTRONIQUE ACTUALITES in French 15 Jan 88 p 6

[Text] Bosch's negotiations to buy into Jeumont-Schneider Telecommunications have led to an agreement, as expected. Initially, the German group will acquire a 35 percent shareholding interest in this subsidiary of JS, an interest which will increase to 80 percent in the course of this year, if it is authorized by the Treasury's Foreign Investment Commission. JS explained that this transaction is needed to establish a strong European alliance in the field of private telephone exchanges, so as to further

develop its foreign markets and gain at least 5 percent of the world market in this sector. In a way, the Bosch-JS agreement, if approved, will mark a new stage in the organization of Franco-German telecommunications markets.

After having pulled itself up to second place on the French private telephone market in about 10 years, behind Telic Alcatel, Jeumont-Schneider discovered so to speak the limits of the national market. So it has been investigating international operations—simultaneously by exporting, attempting the U.S. adventure without great success, by practicing, with more success, a licensing policy for its private automated switching equipment (notably in Italy, Turkey, and India), and by starting up an embryonic European private telephonic industry through its cooperation agreements with the German firm Telenorma, a Bosch subsidiary, and the Italian firm Telettra.

Outside considerations—Alcatel's sudden predominance in Europe after its merger with ITT telecommunications—and probably even more so internal needs—the critical situation of several businesses in the Schneider group—led the group's leaders to change the pace of this policy and step up discussions with partners. "To create a strong European alliance capable of holding at least 5 percent of the world market in private telephone systems," Schneider's executives emphasized, justifying the agreement with Bosch. And to "clean up" the group's balance sheet, professional circles added....

New Relations

Whatever the reasons, if the JS-Telenorma alliance is approved, it should preserve the French company's development policy—with German resources. Moreover, it should market a new stage in the organization of French and German telecommunications markets.

Other manufacturers have of course noticed that the FRG has not obtained any counterpart in this operation. But this operation can indirectly, with its relative weight, be a response to German demands for a balance to Alcatel's entry into SEL (but replacing ITT). In any case, little by little, without any technocracy, and...taking advantage of the other's misfortune, new relations in Franco-German trade in telecommunications are being formed. And this is all helping to make the markets more penetrable. The 1992 deadline everybody is focusing on is speeding up this growing awareness.

Finally, the JS-Bosch agreement confirms the latter's ambitions in the field of telecommunications. To show its determination, Bosch has just increased its share in Telenorma to 100 percent, by buying back from AEG (Daimler-Benz group) its 10-percent share in their joint holding company controlling Telenorma. You will recall that Telenorma is number two in the FRG's private telephone industry behind Siemens, with 1986 sales at DM2.1 billion (for 18,000 employees).

09805/09599

FEDERAL REPUBLIC OF GERMANY

FRG Telecommunications Deregulation Planned for 1988

5500m163 Duesseldorf VDI NACHRICHTEN in German No 50, 11 Dec 87 p 1

[Text] Duesseldorf, 11 Dec (VDI-N)—Economic instability has led the federal government to decide, among other things, to speed up the already planned market opening and to so-called deregulation in the telecommunications sector to improve growth and employment opportunities. Additional decisions regarding the liberalization of the telecommunications market will be made during the first half of next year.

The FRG Government also supports the EC Commission's policy. Early in December in London, Commission Vice President Karl-Heinz Narjes, pointed out that the deregulation of the EC telecommunications market must be promoted in the course of the following year. At that time, the Green Paper guidelines which, according to Narjes are widely accepted by the EC member states and the industrial sector, will be gradually implemented.

Free competition between the state and private sector firms is expected to be introduced into the market for terminal equipment as early as 1990. However, the Bundespost is to retain its monopoly on new telephone connections for a transition period. By 1992—the deadline set for the completion of the EC's internal market—all obstacles to competition should be removed.

According to European Parliament member Ursula Braun-Moser (CDU) [Christian Democratic Union], the Netherlands, following the example of Great Britain, now plans to deregulate the country's telecommunications by 1989. The CDU representative is not certain whether the Bundespost will retain its monopoly under these conditions.

08802

Competition in Satellite Communications Field Addressed

5500244Oa Munich SUEDDEUTSCHE ZEITUNG in German 4 Feb 88 p 28

[Text] Bonn/Hamburg—Minister for Post & Telecommunications Christian Schwarz-Schilling clarified his ministry's position on future private-sector competition in the areas of satellite communications and cellular radio for the first time at the "Online" congress in Hamburg on Wednesday. According to his statements, a private supplier of satellite communication should be permitted only if there is no chance of compromising the

Postal Service's telephone monopoly. The second supplier in the area of cellular radio that the Postal Service is willing to tolerate is scheduled to be determined this year in an open call for bids.

Schwarz-Schilling made it clear in Hamburg that the Federal Postal Service, as part of its structural reforms, is willing to make all areas accessible to private initiative, aside from the cable-link communication infrastructure, where it will retain its monopoly. This is true first and foremost of communication via cellular radio networks and satellite systems, he said, where competition between the state communication authorities and private suppliers has proven worthwhile in other Western countries. For private suppliers of communications services by satellite, Schwarz-Schilling sees opportunities in particular in those sectors of the economy that require flexible, radial communication links between a main office and various branches, such as in banking, insurance or even newspaper publishing. Innovative applications are emerging in this area that are not offered—at least not comprehensively—by earth-based networks.

The minister said, however, that the Federal Postal Service would open up services like video conferences, rapid facsimile transmission and data transmission in any form to private competitors only if they do not exceed certain transmission standards (low bit rates), and if they abstain from using satellites to convey telephone conversations, thus undermining the postal monopoly in this area. Schwarz-Schilling felt, however, that this danger would decrease over the course of the next few years, since the Postal Service is planning to significantly lower its rates for long-distance calls.

Schwarz-Schilling indicated that the Postal Service is willing to allow limited competition, in the form of a second network operator within the FRG, in the area of cellular radio ("autotelephone"). Although at present the Federal Postal Service is operating the old B network and the new C network on its own, the future digital, pan-European D network is to be operated by the Postal Service together with a private company. Assuming full coverage by both suppliers, the customer would then have the choice of using the Postal Service or the private network operator. Schwarz-Schilling announced in Hamburg that the Postal Service will shortly begin the process of inviting bids in order to determine this year who the second supplier of cellular radio services in the FRG will be.

12271

German Bundespost Slow on Telecommunications Deregulation

5500a028 Amsterdam COMPUTABLE in Dutch 15 Jan 88 p 17

[Unattributed article : "Bundespost Not Concerned About Green Paper"]

[Text] Stuttgart—Apparently West Germany still does not observe the scenario for deregulating the telecommunications market as described in the European Green Paper. The Green Paper stipulates that the market for telecommunications equipment should be free by 1990, including value-added services and satellite receivers. Also, rates should be made consistent with costs.

A report recently published by a commission of the German Federal Government indicates that the FRG does not heed these directives. Not only are the Bundespost's rates twice as high as those of British Telecom (BT), they are also user-dependent, which means that facilities are not used optimally. Also, the German PTT hardly allows leasing of line capacity to third parties. Although the Bundespost has the intention to change this situation, the success of deregulation will largely depend on a revision of German law. A two-third majority in the House of Representatives will be necessary to open up the Bundespost's activities. This does not seem possible as yet. Still, before long leasing lines to third parties will be allowed in Germany and the market for terminal equipment will also be opened up soon.

25068

AEG, Alcatel, Nokia to Work Jointly as ECR Consortium

55002440b Munich SUEDDEUTSCHE ZEITUNG in German 19 Jan 88 p 20

[Text] Stuttgart—Expecting that 10 million subscribers will use the coming European cellular radio network within the next 10 years, Alcatel NV, Brussels, AEG AG, Frankfurt and Oy Nokia Ab, Helsinki, have joined forces for the project. In the ECR 900 (European Cellular Radio 900) consortium, the three companies plan to cooperate in the development, production, marketing and distribution of telephone networks according to the pan-European GSM standard. For development leading up to the first installations in 1991, the consortium is figuring on expenditures of over DM 300 million, and it plans to employ 400 people. Alcatel, Nokia and AEG are splitting the expenses in a ratio of 50 to 35 to 15. Gerhard Zeidler, chairman of the consortium's program group and member of the board of directors of Alcatel subsidiary Standard Elektrik Lorenz AG (SEL) in Stuttgart, is expecting around two million West German subscribers in the cellular radio network by the year 1998. The consortium is competing with two other amalgamations: Bosch-Telenorma-Philips Communications Industry-ANC, and Siemens-Ericsson.

12271

IRELAND

Irish Center To Work on Satellite Research

55500082 Dublin IRISH INDEPENDENT in English 28 Jan 88 p 5

[Article by Dick Cross]

[Text] Ireland has made a major breakthrough into the field of research and development for space satellites.

Minister for Science and Technology Sean McCarthy yesterday announced a 3 million deal between the European Space Agency (ESA) and the National Microelectronics Research Entre (NMRC) attached to University College, Cork.

The centre in Cork will design, test and package integrated circuits to be used in satellites used for weather forecasting and communications.

This is the first time Ireland has secured a contract of this nature since the country joined the ESA in 1974.

Dr McCarthy said the NMRC had assembled vast experience in the use of computer-aided design techniques to produce integrated circuits (microchips) and the new contract was in recognition of that achievement.

The initial agreement with the ESA for its Irish centre, in Cork, was for a five year period, beginning this year, and would see about 3 million directly invested in the Cork centre.

The immediate result would be the establishment of six new senior positions within the centre in Cork, together with back-up staff and equipment. That, said the Minister, would be only the very beginning, because there was scope for expansion of the centre in the medium term.

He said success in winning such contracts would inevitably led to a substantial expansion of the facility and provide high-tech jobs in Cork in the years ahead.

The new facility would have the opportunity to get involve in additional, specialist, research contracts on behalf of contractors outside the ESA.

The existence of the centre would enhance the Cork area's image internationally as a centre of particular excellence in electronics technology.

The Cork centre had been set up in 1981 as "a centre of excellence in microelectronics" and had grown rapidly in resources and reputation since then. Its performance had quite clearly im pressed the ESA considerably.

/9274

Transatlantic Optical Fiber Cable for Telecom Eireann

55500081 Dublin IRISH INDEPENDENT in English 13 Jan 88 p 4

[Text] Telecom Eireann yesterday announced it is making a 20 million investment in PTAT-1—the first privately-funded transatlantic optical fibre telecom cable.

The cable which will land in Ireland will provide major telecommunications users here with direct high-speed, high-quality digital links to both North American and Europe at competitive prices.

It will enhance Ireland's existing satellite links and jlinks via transatlantic cable which land in Britain and continental Europe.

PTAT-1 is due in service in mid-1989.

The lead function for the cable has been taken by Cable and Wireless (C&W), one of the world's largest international telecommunications companies, in a joint venture with PTAT Systems Incorporated of the U.S.

The cable will form a key link in a plan to establish a global digital highway linking the world's major financial and business centres.

This is of particular significance in the development of the new International Financial Services Centre at the Custom House Docks. Site in Dublin.

Links via PTAT-1 can be extended across the U.S. and 2 hence across the Pacific, via fibre optic cable systems which will link North American to Japan by late 1989.

Looking eastwards, digital links will be extended across the UK via Mercury Communications Ltd., C&W's wholly-owned subsidiary.

The PTAT project will complement Telecom Eireann's currently planned investment in optical fibre cable systems, including a new cross-channel cable from Dublin to Holyhead, in partnership with British Telecom, which is due in service later this year.

The PTAT-1 cable will link Brean, near Bristol, with Manusquan, New Jersey, with spurs to Ireland and Bermuda.

The actual landing point in Ireland will be Courtmacsherry Bay, Co Cork.

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Plan for Third National Television Service Announced

55500086 Dublin IRISH INDEPENDENT in English 22 Feb 88 p 8

[Text] A third national television service will be beamed into more than one million Irish homes early in 1989, Communications Minister Ray Burke promised yesterday.

The commercial channel, independent of RTE, will be carried on a new national cable service, details of which will be announced next week, he said.

State of the art technology—known as Multi-point Microwave Distribution System (MMDS)—will guarantee top quality picture and free operators of crippling development costs, he added.

Mr. Burke told journalists after his announcement of the commercial channel that, without the MMDS the cost of setting up the commercial service could be up to £30 million.

The new MMDS will link all the cable systems in a national service which, Mr. Burke insisted, would cost no more than the existing separate local cable operations.

And he said that a key requirement in the licensing of the cable systems will be the availability of one line to carry the new commercial channel into the nation's homes.

Mr Burke told delegates at the Ard Fheis "The new television service will produce a healthy degree of competition between the State sector and the private broadcasting area.

"It will also help to offset the imbalance arising from the large number of external services which will inevitably be available here in the years ahead", he said.

Though no legislation is required to set up the new systems, Mr. Burke said that he had decided that a legislative authority to oversee the commercial system would be desirable.

The national cable system, based on the MMDS will involve the placing of a small deedjzcoder in each household, linked to a small aerial.

"By doing it in this way we will be able to avoid the enormous capital cost involved in setting up a national service with its need for masts, linkings and boosters", he said.

In addition, the fact that Ireland is ahead of the rest of Europe in the development of MMDS, presents the country with a major opportunity to cash in, worldwide, on the manufacture of the hardware.

Dealing with the new commercial channel, Mr. Burke said it would be largely based on the work of independent production companies but would have a national news and current affairs component.

Special guidelines would be set out by the new legislation to enable the authority to assess the quality of the service being proposed by franchise applicants, he said.

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SWEDEN

Sweden's Fully Digital Telecom Network

5500a027 Amsterdam COMPUTABLE in Dutch 8 Jan 87 p 27

[Article by Vincent Vreeken: "Sweden Is Now Communicating Fully Digitally: Basis of ISDN Network Established"; first paragraph is COMPUTABLE introduction]

[Text] Stockholm—Swedish Telecom recently inaugurated a nationwide, fully digital telecommunications network. To achieve this, the Swedish Telecom invested about 7 billion Dutch guilders in the narrow-band communications network over the past five years.

"The inauguration is a milestone in the history of telecommunications," said the Swedish Minister of Transport and Communications at the inaugural ceremony, which was also attended by Tony Hagstrom, the director general of Swedish Telecom, Bjorn Svedberg, the director of Ericsson, and some other important representatives from industry.

Capacity

During the past 5 years, Swedish Telecom has significantly expanded its telecommunications network capacity. In all, about 7 billion Dutch guilders were invested in the network over this period, of which 2 billion during the last year alone.

The cornerstone of the narrow-band long-distance digital network consists of more than 80 AXE telephone exchanges spread throughout the country. Calls are transmitted between exchanges using the so-called Common Channel Signaling procedure (CCITT Nr 7).

Although the digital network still contains traditional coaxial cables, all new long-distance lines will exclusively consist of fiber-optic cables. According to Swedish Telecom a nationwide fiber-optic network should be operational by next year and the use of optical fibers should be generalized by the early nineties.

During the inaugural ceremony, it was recalled that "the digital network is very important for telecommunications and serves as the basis for developing the ISDN network." Sweden has the highest telephone density in the world with 45 telephones per 100 inhabitants. Moreover, the number of computer terminals per capita also seems to be the highest in the world. Estimates indicate that about 1 million workstations will be in use within a few years.

From anywhere in Sweden, computer data and digitized calls can now be transmitted via digital PABX's at a rate of 64 kilobits per second, which corresponds to roughly three pages text in A4 format per second. The modern

network also has advantages for private users because it provides shorter connect times and produces fewer problems with long-distance calls.

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UNITED KINGDOM

Home Minister Proposes New Broadcasting Setup

55500073 London THE DAILY TELEGRAPH in English 20 Jan 88 p 1

[Article by Harvey Lee]

[Text] Three national commercial radio stations, to be auctioned to the highest bidders, and hundreds of local and community stations will be set up under proposals announced by Mr Hurd, Home Secretary. The stations could begin broadcasting in two years.

They will be licensed and lightly supervised by a new Radio Authority which will also assume control of existing independent local radio from the Independent Broadcasting Authority. The intention is to free radio from present restrictions, create competition for the BBC and give listeners far more choice.

Announcing the plan for a big expansion of commercial radio, which was largely foreshadowed in a Green Paper last February, Mr Hurd told the Commons: "The time is now right for major change.

"We have been well served by broadcasters. Standards have been high. But we have less radio than other countries. In many areas, listeners have no service other than the BBC.

"There are many tastes and interests which existing services can, at best, satisfy only to a limited extent."

The proposals will be included in a Broadcasting Bill in the autumn.

They provide for a gradual end to simultaneous broadcasting of services on more than one frequency. This should make room for the new local stations.

The tendering process for the national frequencies will be in two stages. The Radio Authority will first vet programme plans to make sure they are sufficiently varied. Approved applicants will then be invited to submit sealed tenders.

The Government does not want another national pop station, such as BBC Radio 1. But it has not ruled out stations concentrating on classical music or speech.

Licences will run for eight years and control of stations will be restricted to companies within the EEC. No group will be allowed to own more than one national or six local stations. Religious or political propaganda will not be permitted.

Mr Hurd said: The key test which stations will have to pass, to obtain a licence to broadcast, is that of widening the range of consumer choice. They will have to live up to their promises to their audiences if they want to keep these licences."

The Government envisages several hundred local and community stations. Frequencies for these will not be auctioned, but will be assigned by the new authority subject to local demand and wishes. These stations may aim to serve local audiences in whole or in part by offering specialist music or ethnic programming.

All stations will be allowed to make their own transmitting arrangements. These are at present controlled by the IBA, using its 131 transmitters.

The Community Radio Association said last night that 100 non-commercial community stations could be ready to take to the air by Christmas, 1989. A plan to issue about 120 experimental community radio licences which was abandoned last year by the Government at the eleventh hour, attracted more than 270 applications.

The association has set up a development team, funded in part by the Home Office through the Voluntary Services Unit.

The IBA, which created the first local commercial station in 1973, said it regretted the Government's decision to set up a new authority. The IBA dismissed Mr Hurd's belief that it would have its hands full with developments in satellite television.

The IBA will meet tomorrow to discuss the proposals. Options include offering to separate the radio division—which employs 20 people—to form the new Radio Authority, utilising its engineering and technical expertise by bidding to become a transmission agency for commercial radio, or selling its transmitters.

The Association of Independent Radio Contractors welcomed the chance to break free from the IBA, but criticised the decision to seek mixed programming on the three national stations.

The BBC has announced plans to surrender two medium wave frequencies used by Radio 1 and Radio 3. The third national commercial station will use a VHF frequency to become available by international agreement in 1990.

But pressure on the Government to force the BBC to give up VHF frequencies instead has already begun.

Mr Colin Walters, managing director of Piccadilly Radio in Manchester, said: "The frequencies the BBC is currently offering to relinquish provide inadequate population coverage. Unless the Government forces the BBC to relinquish some quality frequencies, the plan will fail."

Mr David Hatch, managing director of BBC network radio said: "We welcome these developments which will offer greater choice.

"However, within this new framework, we at the BBC must ensure that our 34 million listeners each week will enjoy the full range and diversity of the programmes we offer."

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END OF FICHE

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